Amit Debnath

Mechanical Engineer

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Education Details

KCC Institute of Tech. and Mgmt, Greater Noida, UP
B.Tech, Mechanical Engineering
June 2018 - July 2021)

P.M. College of Engineering, Sonipat, Haryana
Diploma, Mechanical Engineering
June 2014 - July 2017

Sukhamoy Higher Secondary School, Agartala
XII, TBSE
April 2012 - May 2014

Work Experience

Mechanical Engineering Intern Apr'21 - Sept'21
SEPL India Ltd. Delhi, India

- Worked with India's one of the fastest growing manufacturers, suppliers and service providers of elevators and escalators under the **inspection and maintenance** team.
- While working with the maintenance team I ha installed various components such as **limits to guide rail, Junction box at the car top, GP brackets** at 700 mm from the pit along with other various tasks.
- Worked closely with the leadership team to devise **data-driven strategies** and improve the process efficiency.

Mechanical Engineering Intern Jul'16 - Sept'16
Tata Motors Limited Agartala, India

- Trained with the Indian multinational automotive manufacturing company under the **Research team**.
- Analysed and observed the quality check and maintenance of various automobile components and their parts: **Chassis, IC Engines, Suspension, Steering, Emission control technologies.**
- Designed and developed various vehicle parts using **CAD/CAM** software with the company **R and D team** as well for research purposes. .

Freelancer Sept'18-
Shutterstock Remote

- From Concept development to final **design details**.
- I helped with visualizing clients' ideas through **3D model development**, use of Photoshop.
- Ideas are then further developed to the **Prototype** stage to test concepts and design. .

Relevant Skills

Drafting	2D and 3D Drafting.
Design	3D Modeling, SPM Design, Hard Surface Modeling, Illustration.
Tools	Fusion 360, AutoCAD, Keyshot, SolidWorks, Inventor, Blender

Relevant Projects

Automatic Sorting System Jan'21 - May'21
Major Project

- This new technology came under the **Industry 4.0** revolution. The Industry 4.0 market is estimated to be valued at **USD 71.7 Bn** in 2019 and is expected to reach **USD 156.6 Bn** by 2024.
- **Built** an Automatic Sorting System which can distinguish materials based upon their properties such as color, height, and thickness. using **Machine Learning**
- Used **CNN** to achieve the interaction between the camera and **object to be detected**, the device is more user friendly then the existing technologies.

Spider Kart Jan'17 - Mar'17
Major Project

- Global Go kart market worth around **USD 88 million** by 2022
- **Chassis** is an imported element of the kart. As it provides, the equivalent of suspension to give good grip at the front.
- Designed the 2D model of chassis. in **AutoCad** and **Fusion 360** for 3D rendering.
- It has **Rear Spring Suspension** and **Oversized Tires** giving it a very unique feel and balance.

Personal Projects Mar'20-
Minor Project

- Designed and **assembled** of **Aircarft: Radial Engine** using **Autodesk Inventor.**
- Designed a **Screw Scissor Lift Mechanism** using SolidWorks.
- Modeled a fully functional **World War II Jeep** with the help of **Autodesk Fusion 360**.
- Simulation test on **Spring Coil** to find out **Angular Global load** and **Structural load** with the help of Fusion 360.
- Modeled a **Sci-fi Futuristic Motor-Cycle** using **Blender**.
- Practiced various complex **Mechanical Geometrical Drawings** in **AutoCad 2D**.
- Constructed a **Supersonic Jet** and run **Simulation** tests on Autodesk fusion 360.
- Design a lightweight **Semi-Automatic Machine Gun** using fusion 360
- Modeled a **Pocket Knife** with the help of Autodesk Fusion 360.

Achievements

- Certified **SOLIDWORKS Associate (CSWA)** from **Udemy**.
- Introduction to industry 4.0 and Internet of things From **NPTEL** and secured 68 Percentage, conducted by **Swayam** at Greater Noida, India.
- Introduction to Mechanical Engineering Design and Manufacturing with **Fusion 360** from **Autodesk** and secured **96 Percentage**.
- Automotive Engineering-A completed course on **Turbocharging** from **Udemy**.
- AutoCad for Design and Drafting from **Autodesk** and obtained **91 Percentage**.
- Automotive Engineering: Common Rail Direct Injection **CRDI** from **Udemy**.